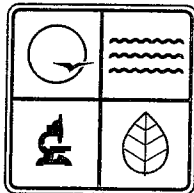


STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI AIR CONSERVATION COMMISSION



PERMIT BOOK

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: **11 2 006 - 004** Project Number: **2006-09-010**
Owner: **Ceramo Company, Inc.**
Owner's Address: **Hwy 72 West, Jackson, MO 63755**
Installation Name: **Ceramo Company, Inc.**
Installation Address: **Hwy 72 West, Jackson, MO 63755**
Location Information: **Cape Girardeau County, S27, T31, R21**


Application for Authority to Construct was made for:

Addition of three new shuttle kilns. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

-
- ☒ Standard Conditions (on reverse) are applicable to this permit.
- ☐ Standard Conditions (on reverse) and Special Conditions (listed as attachments starting on page 2) are applicable to this permit.

NOV - 2 2006

EFFECTIVE DATE


DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

on J-LK

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional Office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed Special Conditions as provided in RSMo 643.075. If you choose to appeal, the Air Pollution Control Program must receive your written declaration within 30 days of receipt of this permit.

If you choose not to appeal, this certificate, the project review, your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Department of Natural Resources has established the Outreach and Assistance Center to help in completing future applications or fielding complaints about the permitting process. You are invited to contact them at 1-800-361-4827 or (573) 526-6627, or in writing addressed to Outreach and Assistance Center, P.O. Box 176, Jefferson City, MO 65102-0176.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention Construction Permit Unit.

2006-09-010

Ceramo Company, Inc.

Hwy 72 West, Jackson, MO 63755

Ceramo Company, Inc.

Hwy 72 West, Jackson, MO 63755

Cape Girardeau County, S27, T31, R21

Addition of three new shuttle kilns. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW

Project Number: 2006-09-010
Installation ID Number: 031-0012
Permit Number:

Ceramo Company
Hwy 72 West
Jackson, MO 63755

Complete: September 5, 2006
Reviewed: September 29, 2006

Parent Company:
Ceramo Company, Inc.
Hwy 72 West
Jackson, MO 63755

Cape Girardeau County, S27, T31, R21

REVIEW SUMMARY

- Ceramo Company, Inc. has applied for authority to add three new shuttle kilns.
- Hazardous air pollutants (HAP) are emitted in insignificant quantities.
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) or currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.
- No air pollution control equipment is being used in association with the new equipment.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of criteria air pollutants are below de minimis levels.
- This installation is located in Cape Girardeau County, an attainment area for all criteria air pollutants.
- This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].
- Ambient air quality modeling was not performed since potential emissions of the application are below de minimis levels.
- Emissions testing is not required for the equipment.

- Addition of the equipment in this permit qualifies as an off-permit change to your Part 70 Operating Permit. Ceramo Company can submit an Intermediate Operating Permit application if they wish to take a voluntary emission limitation of 100 tons per year.
- Approval of this permit is recommended without special conditions.

INSTALLATION DESCRIPTION

Ceramo Company is a clay pot manufacturer located in Jackson, Missouri. Ceramo receives raw clay and various oils. The clay is crushed, blended with grease and oils, and processed in a de-airing pugmill. Ceramo currently uses Super Permalube Grease, Telura 401 process oil, SX-1 Base Oil, and Ultra-Blend release oil as clay additives and/or mold release agents. The pugmill removes air bubbles, which can cause cracks and void spaces in the final product. Next the mixture is pressed into the form of clay pots. Then the pots are dried and fired in a kiln. The finished pots are allowed to cool, quality checked, packaged, and stored prior to shipment off-site.

Ceramo Company was issued a Part 70 Operating Permit (OP2002-004) on February 7, 2002. The following construction permits have been issued to Ceramo Company, Inc. from the Air Pollution Control Program.

Permit Number	Description
0199-023	Installation of four (4) 5.5 MMBtu natural gas fired furnaces used for clay drying
092001-015	Modification to Permit No. 0199-023, pursuant to stack test data

PROJECT DESCRIPTION

Ceramo Company, Inc. submitted a construction permit application dated August 30, 2006 for the addition of three shuttle kilns (Shuttle Kiln #1, #2, and #3). Clay pot manufacturing is a batch operation. The kilns are fired for a short time to raise the temperature of the kiln to 1700 °F or 1875 °F. The temperature is held for a short period of time. The burners are then turned off and not fired again until the next load, which is not until the next firing day. The burners can not be lit again without causing severe damage to the product. According to the information in the application, the combined design rate of the three kilns are 1.14 tons of pots per hour. The combined capacity of the natural gas burners associated with these kilns is 5.04 million British Thermal Unit per hour (MMBtu/hr).

EMISSIONS/CONTROLS EVALUATION

The emission factors used in this analysis were obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 11.3, *Brick and Structural Clay Product Manufacturing* (8/97), and Section 1.4, *Natural Gas Combustion* (7/98). The existing potential

emissions were evaluated from Permit Number 092001-015. The existing actual emissions were estimated from the 2005, Emission Inventory Questionnaire (EIQ). Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year). The following table provides an emissions summary for this project.

Table 1: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2005 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM ₁₀	15.0	194.24	37.48	4.51	N/A
SO _x	40.0	N/D	3.7	3.91	N/A
NO _x	40.0	24.27	7.99	3.96	N/A
VOC	40.0	<250.0	58.2	0.24	N/A
CO	100.0	16.75	7.71	7.85	N/A
HAPs	10.0/25.0	N/D	N/D	0.04	N/A

*N/A = Not Applicable; N/D = Not Determined

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of criteria air pollutants are below de minimis levels.

APPLICABLE REQUIREMENTS

Ceramo Company, Inc. shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required April 1 for the previous year's emissions.
- *Operating Permits*, 10 CSR 10-6.065
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170

- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-3.090

SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted without special conditions.

Fuad Wadud
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated August 30, 2006, received September 5, 2006, designating Ceramo Company, Inc. as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Southeast Regional Office Site Survey, October 12, 2006.

Mr. Kenneth Kasten
Engineer
Ceramco Company, Inc.
Hwy 72 West, P.O. Drawer 485
Jackson, MO 63755

RE: New Source Review Permit - Project Number: 2006-09-010

Dear Mr. Kasten:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri. Operation in accordance with the special conditions of this permit, your new source review permit application and with your operating permit is necessary for continued compliance.

The installation of this equipment qualifies as an off-permit change for your Part 70 Operating Permit. As specified in 10 CSR 10-6.065 paragraph (6)(C)9, an off-permit change requires "written notice of the change to this permitting authority and to the administrator." This construction permit serves as notification to the operating permit authority.

In order to fulfill the notification requirement to the administrator, please send a written notice to Tamara Freeman, Environmental Protection Agency Region VII, 901 N. 5th Street, Kansas City, KS 66101. As detailed in 10 CSR 10-6.065 paragraph (6)(C)9.B, "... the written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirements that would apply as a result of the change." Please send this notification at least 30 but not more than 60 days prior to anticipated start up of this air contaminant source.

If you have any questions regarding this permit, please do not hesitate to contact me at (573) 751-4817, or you may write to the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale
New Source Review Unit Chief

KBH:fwl

Enclosures

c: Southeast Regional Office
PAMS File: 2006-09-010
Permit Number: